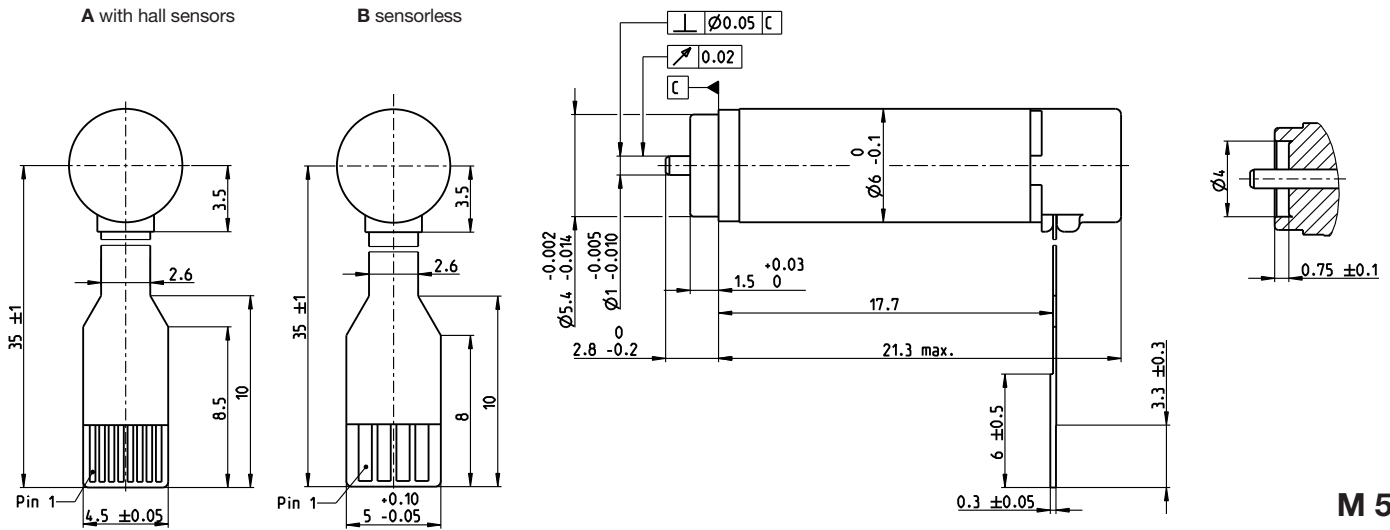


EC 6 Ø6 mm, brushless, 1.5 Watt



M 5:2

- Stock program
- Standard program
- Special program (on request)

Part Numbers	
A with Hall sensors	455020 468897
B sensorless	455019 468896

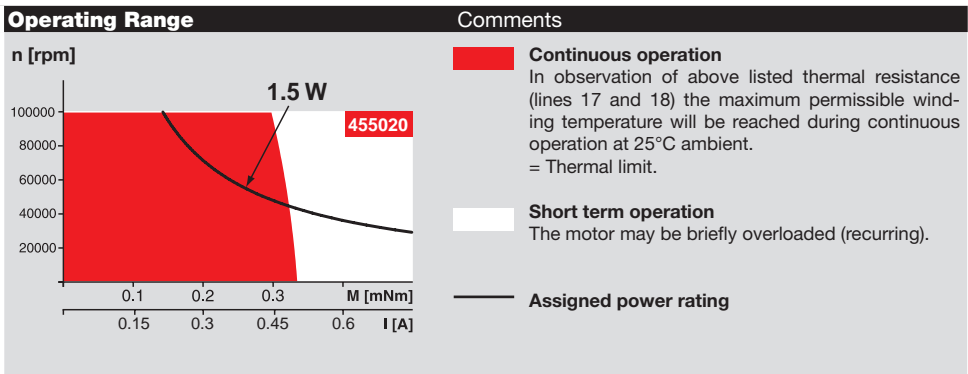
Motor Data (provisional)			
Values at nominal voltage			
1 Nominal voltage	V	6	12
2 No load speed	rpm	44100	33500
3 No load current	mA	46.9	15.5
4 Nominal speed	rpm	25500	13900
5 Nominal torque (max. continuous torque)	mNm	0.339	0.33
6 Nominal current (max. continuous current)	A	0.314	0.116
7 Stall torque	mNm	0.832	0.59
8 Stall current	A	0.688	0.188
9 Max. efficiency	%	57	53
Characteristics			
10 Terminal resistance phase to phase	Ω	8.72	63.8
11 Terminal inductance phase to phase	mH	0.065	0.436
12 Torque constant	mNm/A	1.21	3.14
13 Speed constant	rpm/V	7900	3040
14 Speed/torque gradient	rpm/mNm	57000	61800
15 Mechanical time constant	ms	4.2	4.55
16 Rotor inertia	gcm ²	0.00703	0.00703

Specifications	
Thermal data	
17 Thermal resistance housing-ambient	67.1 K/W
18 Thermal resistance winding-housing	16.1 K/W
19 Thermal time constant winding	1.69 s
20 Thermal time constant motor	71.8 s
21 Ambient temperature	-20...+100°C
22 Max. winding temperature	+125°C
Mechanical data (preloaded ball bearings)	
23 Max. speed	100000 rpm
24 Axial play at axial load < 0.15 N	0 mm
> 0.15 N	max. 0.06 mm
25 Radial play	preloaded
26 Max. axial load (dynamic)	0.1 N
27 Max. force for press fits (static)	10 N
28 Max. radial load, 2 mm from flange	2 N
Other specifications	
29 Number of pole pairs	1
30 Number of phases	3
31 Weight of motor	3 g

Values listed in the table are nominal.

Connection	with hall sensors	sensorless
Pin 1	Motor winding 1	Motor winding 1
Pin 2	Motor winding 2	Motor winding 2
Pin 3	Motor winding 3	Motor winding 3
Pin 4	V _{Hall} 3.8...24 VDC	N.C.
Pin 5	GND	
Pin 6	Hall sensor 1	
Pin 7	Hall sensor 2	
Pin 8	Hall sensor 3	
Connector	Part number	Part number
Molex	52745-0897	52207-0460
FCI	SFV8R-2STBE1HLF	SFW4R-2STGE1LF

Pin for design with Hall sensors:
 FPC, 8 pole, pitch 0.5 mm, top contact style
 Wiring diagram for Hall sensors see page 35



maxon Modular System		Overview on page 20-27
<p>Planetary Gearhead Ø6 mm 0.002 - 0.03 Nm Page 311</p> <p>Spindle Drive Ø6 mm Page 361-362</p>		<p>for type B: Encoder 6-8 MAG 64-256 CPT, Page 384</p> <p>for type B: Encoder 6-8 OPT 128 CPT, Page 394</p>
<p>Recommended Electronics: Notes Page 26</p> <p>ESCON Module 24/2 416</p> <p>ESCON 36/3 EC 417</p> <p>ESCON Mod. 50/4 EC-S 417</p> <p>DEC Module 24/2 420</p> <p>EPOS2 24/2 EC 424</p> <p>EPOS2 Module 36/2 424</p>		